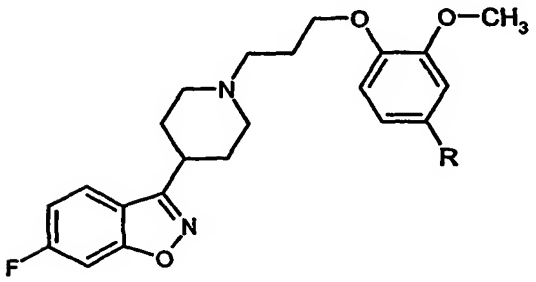
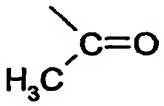
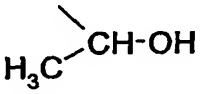
WHAT IS CLAIMED IS:

1. An injectable depot formulation comprising crystals of iloperidone or its metabolite or a pharmaceutically acceptable salt, hydrate, solvate, polymorph and stereoisomer thereof, wherein the X_{50} value of the crystals is from 1 to 200 microns.

2. An injectable depot formulation comprising crystals having Structure (I)

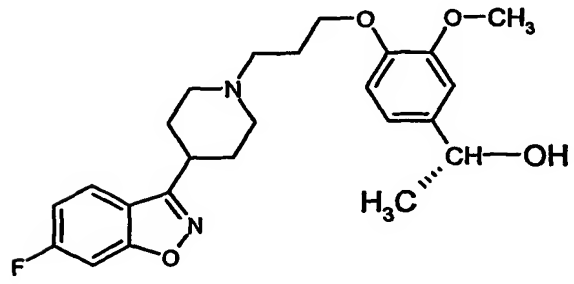


(I)

wherein R is  or 

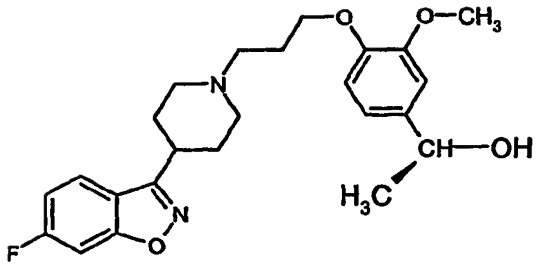
and the X_{50} value of the crystals is from 1 to 200 microns.

3. The depot formulation according to Claim 2 wherein the crystals have Structure (II)



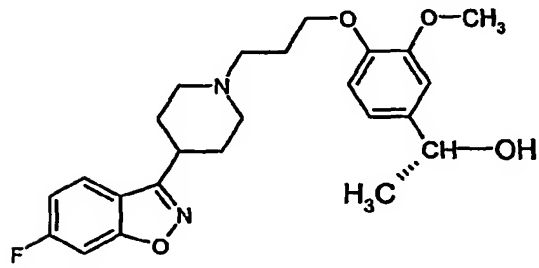
(II)

4. The depot formulation according to Claim 2 wherein the crystals have Structure (III)



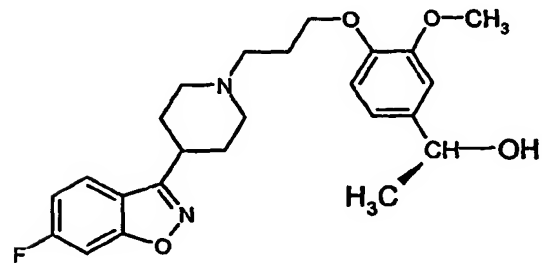
(III)

5. The depot formulation according to Claim 2 wherein the crystals are a combination of crystals having Structure (II)



(II)

and crystals having Structure (III)



(III)

6. The depot formulation according to Claim 1 wherein the crystals are in a form selected from the group consisting of needles, trigonal forms, tetragonal forms, flat rod shaped, cubes, parallelepipeds, and plate-like needles.

7. The depot formulation according to Claim 1 wherein the X_{50} value of the crystals is from 10 to 170 microns.

8. The depot formulation according to Claim 7 wherein the X_{50} value of the crystals is from 15 to 70 microns.

9. The depot formulation according to Claim 1 wherein a suitable vehicle is used to form a suspension of the crystals.

10. The depot formulation according to Claim 9 wherein the suitable vehicle is water.

11. The depot formulation according to Claim 1 which additionally comprises an additional ingredient selected from the group consisting of a surfactant, solubilizer, emulsifier, preservative, isotonicity agent, dispersing agent, wetting agent, filler, solvent, buffer, stabilizer, lubricant, thickening agent, and combinations thereof.

12. The depot formulation according to Claim 11 wherein the surfactant is selected from the group consisting of a sorbitan fatty acid ester, phosphatide, polyoxyethylated sorbitan monooleate, polyoxyalkylene derivatives of propylene glycol, polyoxyethylated fat, polyoxyethylated oleotriglyceride, linolizated oleotriglyceride, polyethylene oxide condensation products of fatty alcohol, and an alkylphenol.

13. The depot formulation according to Claim 12 wherein the surfactant is a polyoxyalkylene derivative of propylene glycol.

14. The depot formulation according to Claim 11 wherein the concentration of surfactant is in the range of about 0.5 to about 10 mg/mL.

15. The depot formulation according to claim 11 wherein the thickening agent is selected from the group consisting of sodium carboxymethyl cellulose, hydroxypropyl cellulose, calcium carboxymethyl cellulose, and crosslinked carboxymethyl cellulose.

16. The depot formulation according to Claim 15 wherein the thickening agent is sodium carboxymethylcellulose.

17. The depot formulation according to Claim 11 wherein the concentration of thickening agent is in the range of about 2 to about 25 mg/mL.

18. The depot formulation according to Claim 11 wherein the isotonicity agent is selected from the group consisting of salts such as sodium chloride; sugars such as dextrose, mannitol, and lactose.

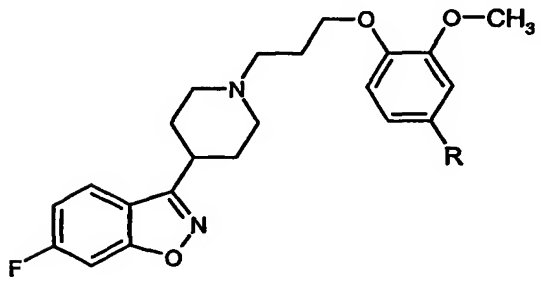
19. The depot formulation according to Claim 18 wherein the isotonicity agent is mannitol.

20. The depot formulation according to Claim 1 wherein the amount of iloperidone or its metabolite administered in one injection is from about 10 mg to about 1000 mg.

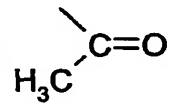
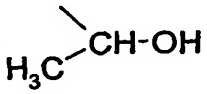
21. The depot formulation according to Claim 20 wherein the amount of iloperidone or its metabolite administered in one injection is from about 100 mg to about 750 mg.

22. A package comprising a container containing an injectable depot formulation comprising crystals of iloperidone or its metabolite or a pharmaceutically acceptable salt, hydrate, solvate, polymorph and stereoisomer thereof, wherein the X_{50} value of the crystals is from 1 to 200 microns.

23. A package comprising a container containing an injectable depot formulation comprising crystals having Structure (I)



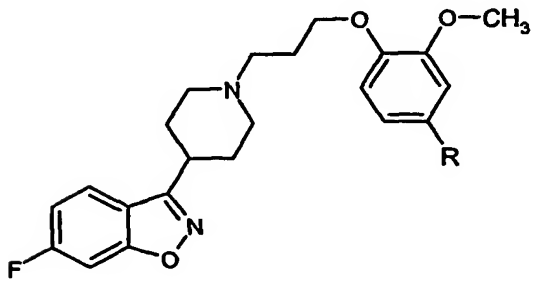
(I)

wherein R is  or 

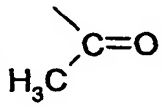
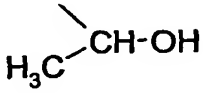
and the X_{50} value of the crystals is from 1 to 200 microns.

24. Crystals of iloperidone or its metabolite or a pharmaceutically acceptable salt, hydrate, solvate, polymorph and stereoisomer thereof, wherein the X_{50} value of the crystals is from 1 to 200 microns.

25. Crystals having Structure (I)



(I)

wherein R is  or 

and the X_{50} value of the crystals is from 1 to 200 microns.